

MEASURING THE IMPACT OF A NEW CONSERVATION AREA ON THE LOCAL LIVELIHOODS

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The Centre for Water Resources Conservation and Development (WARECOD) is a non-governmental organisation working to promote the sustainable use of Vietnam's water resources. Its goal is to improve the livelihoods of river-dependent communities, encourage the sustainable use of the rivers and expose harmful development projects such as poorly planned dams. WARECOD was established in 2006 under the auspice of the Vietnam Union of Science and Technology Association (VUSTA). During the past few years, WARECOD implemented a research project to assess the impact of the newly established Khau Ca Species and Habitat Conservation Area (SHCA) on the local livelihoods. This would help local authorities recognise the constraints the local communities have been facing after the establishment of the conservation area, and help them develop policies that promote alternative livelihood models. It will also help designing and implementing activities that increase community awareness about the importance of protecting and conserving nature.

Cover Villagers have seen changes since the establishment of the SHCA. This is one of the images taken by local researchers and used to discuss the impact in their communities and livelihoods

In Vietnam's northern province of Ha Giang, the Khau Ca forest is home to the largest population of Tonkin snub-nosed (TSN) monkeys in the world. This 1000-hectare area is dominated by a lower montane evergreen limestone forest, and is one of the most pristine and intact examples of this rare forest type remaining in Vietnam. In addition to the TSN monkey, researchers have identified 16 animal and 29 plant species that are recognised as nationally or globally rare, and threatened. Protecting the Khau Ca forest is the best way to ensure the long-term survival of the TSN monkey and countless other rare species.

The Khau Ca Species and Habitat Conservation Area (SHCA) was established in 2009 and covers three communes. Six ethnic groups live in this area. The village of Phia Deng is located in the conservation area buffer zone, with fifteen households located close together totalling 37 men and 33 women. Agricultural production consists of rice, maize and cassava, and villagers also breed cattle and poultry. Production is mainly for household use. The village has no school or community centre, and it is difficult to reach it, especially during the rains.

Since the establishment of the SHCA, Phia Deng villagers have had to deal with land shortages, a lack of space for livestock breeding and crop production, as well as the outbreak of epidemics. Although livelihoods have become unstable, local

authorities have not developed policies or interventions that can help communities adapt to the new situation. WARECOD's key objective has been to support villagers in researching into their problems and to help them document the difficulties they faced.

Starting in 2015, all households were involved in a process that included designing research questions, discussing specific techniques, and making presentations. The topics the group selected to study each month included the history of their village, an analysis of current socio-economic conditions, the impact of the SHCA on their livelihoods and their access to and control over natural resources. The team followed the Thai Baan methodology, as one that emphasises the key role of local researchers considering that no one understands their area as well as they do. The project staff acted as facilitators who encouraged local researchers to document their knowledge with participatory tools. Maps, tables, games and photos were used to illustrate emerging issues. Visual elements were an important part of this process, and pictures capturing the illegal harvesting of timber and non-timber products were used to raise local awareness. WARECOD provided local researchers with a camera and showed them how to use it effectively. How pictures can be interpreted and how stories can be written in ways that generate impact was also discussed in detail.

The Thai Baan research method increased the capacity of village researchers and gave them a more objective insight into daily village life.

The process was mainly carried out in Phia Deng, although neighbouring villages were also approached to provide additional information. WARECOD organised workshops to share research findings with the local authorities and helped villagers present a photovoice exhibition.

Collecting information

Between 2015-2016, nine men and six women conducted a survey of all Phia Deng households. As the village is far from the centre of the commune, village women were shy about talking to outsiders. Language was also a barrier, especially when talking to older villagers. In nine households respondents were between 25 and 35 years old, while in the others households ages ranged between 35 and 45 years. The education level of villagers was low: 73.7% had completed primary school and only four had attended secondary school. They all said that poverty was the main reason why families were unable to send their children to school.



The surveys showed that young villagers rarely go out to work because they are busy at home. Almost all households in Phia Den rely on agriculture and cultivate paddy rice, maize, peanuts and vegetables as well as raising chickens, ducks, buffalos and cows. Yet villagers could not describe the size of their land in terms of square meters, even if they all knew how much seed was needed. WARECOD converted the amount of seed that would be used per hectare to establish how much land households were using to cultivate paddy. This showed that eleven households had less than 5,000 m². Most villagers also engaged in fishing and forestry activities.

Because of poor irrigation facilities in this mountainous area, agriculture is mostly rainfed. Crops are normally sown in May and harvested in October or November. If the rains are late or there is a drought, villagers change their crop calendar and harvest at the end of the year. They use local paddy seeds that are resistant to drought and diseases. Currently, nine households have paddy lands inside the protected area and twelve are growing maize and cassava there. Research showed that every Phia Deng household has between three or four buffaloes or cows that they use for ploughing. Only four households keep goats. The establishment of the conservation area has meant that there are no longer pastures near the villages, and animals now graze on the paddy fields.

The impact of the SHCA

Before the SHCA, villagers invested time and money growing crops on terraced fields. But now most village rice fields fall within the protected area, and are surrounded by trees and grass. Yields have fallen because there is not enough sunshine and heat for

Left Farmers are not able to increase the size of their plots, so they have become more productive

Right Group discussions helped villagers identify the main changes, and also see those aspects where the establishment of the Khau Ca SHC had little impact



the rice to grow and develop. Villagers who sow paddy seeds before transplanting them see an increasing number of forest animals – civets, squirrels and mice – eating these seeds, and new ones have to be bought. Those producing rice and maize do not know how to stop these animals destroying and nesting in their fields. On the other hand, village men used to hunt and trap animals and birds in the forest before the establishment of the SHCA, but because this is no longer permitted they dedicate more time to farming. An indirect benefit of the conservation area has been that it helped villagers become more proactive. As they are not allowed to increase the size of their plots, they have tried to be more productive. A general difficulty is that they now face water shortages and have to store water because their fields are not near water sources.

Before the SHCA, collecting non-timber products from the forest helped villagers, especially women, to diversify their incomes. This has now drastically declined because there is more shade, and also because of the destruction caused by the growing number of wild animals. Villagers who spent 10-15 days collecting *Phrynium placenterium*, for example,

could collect as much as they wanted and could expect a return of up to US\$ 300. Now they are only able to collect it once a year, and yields and returns have fallen significantly. One non-timber product that continues to grow well in the wild forest is bamboo. Villagers are still able to collect shoots and exchange them for food products at the commune market.

Group discussions revealed that villagers do not feel their culture has been negatively affected by the establishment of the Khau Ca SHCA, although they all recognised that community relations have been affected. Villagers in Phia Deng have always had strong bonds, and when decisions had to be made these were discussed during meetings organised by the village head. Villagers also worked together to improve conditions in their community – an example being the 2 km road built without any mechanical equipment so products could be brought to market. However, the reduced amount of non-timber forest products has had a negative impact on village solidarity. Villagers who used to collect non-timber products together now do so on their own so that they can collect as much as possible.

Table 1. Local villagers' contribution to Khau Ca SHCA protection

What do you do to protect Khau Ca SHCA?	Households	Percentage
Do not cut the trees and trap animals in Khau Ca	18	100.0%
Do not extend agriculture into Khau Ca SHCA	10	55.6%
Communicate with other communes about Khau Ca SHCA protection	8	44.4%
How do you contribute to protecting Khau Ca SHCA?		
Participate in the forest monitoring group	10	55.6%
Monitor illegal activities together with Khau Ca SHCA	18	100.0%
Enhance communication on Khau Ca protection in the village	8	44.4%
Total	18	



Left The participatory approach helped build trust among all those involved

Improved local capacity and awareness

The Thai Baan research method increased the capacity of village researchers and gave them a more objective insight into daily village life. Phia Deng villagers have become more confident, proactive and responsible for their own community. The men and women involved feel their capacities have been enhanced and they are willing to share the negative impacts of the Khau Ca SHCA and discuss the role and importance of nature conservation.

Some of the ideas that emerged from the discussions held with different Phia Deng households are summarised in Table 1 (previous page). These findings are now being discussed with the local authorities with

the objective of stimulating policies that will help districts develop sustainable forest-based livelihoods.

Applying the Thai Baan research method helped the project identify the negative and positive impacts of the Khau Ca conservation area on the local livelihoods. Research findings indicate a reduction in the yields of rice, while pest outbreaks and attacks by wild forest animals have increased. Villagers have less land for raising cattle and chicken, and incomes from non-timber products have declined. Further, conflicts among community members have become common due to the increasing competition for the smaller amounts of non-timber products available. But at the same time, all interviewees said they would no longer come into the forest to cut down trees, trap animals or extend agriculture activities, as they all understood the

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importance of nature conservation. The project has also helped project officers understand the constraints and advantages faced by communities who depend on the natural resources within conservation zones.

The participatory approach built trust among all those involved, and the fact that the project staff stayed in the village and learned more about village life, its culture and problems, made villagers more willing to share their thoughts and problems with outsiders. Project staff also became more confident about working with different ethnic minority groups. WARECOD realised that in order to do good conservation work at a community level it is very important to have detailed discussions with all community members from the beginning of the project. This made it possible to assess how villagers understood their role and the relevance of conservation to their lives. Networking between communities was also seen as an important step for stimulating discussions about conservation.

It also became clear that when villagers know that other economic activities can boost their income they are more likely to protect the natural resources. Local authorities, therefore, must design policies and programmes that support village incomes.

Developing stronger linkages

In the early 1990s, conservationists began to develop new approaches to meet economic well-being and conservation needs. Strategies were developed to strengthen the relationship between biodiversity and the local livelihoods. Research has shown that if villagers are given the opportunity to benefit from the existing biodiversity they may be more prepared to resist external threats. Conservationists might, for example, help local communities set up non-timber forest product enterprises.

Following this research, WARECOD reviewed documents relevant to livelihood and conservation issues to identify approaches that might be applicable to the Phia Deng situation. This showed that

- microcredit can enable people to invest in the start-up phase of new livelihood projects. Currently, the Vietnam government has many loan programmes for the poor and for rural people. Organisations such as farmers unions and women unions are responsible for monitoring these loans which can be used for livestock production. Monitoring ensures loans are used for stated objectives and paid back on time;
- poor infrastructure makes it difficult for villagers to transport their agricultural and non-timber products to commune centres, towns and others villagers;
- a shortage of space and limited food for livestock production emphasises the importance of animals that can be bred in such situations like local pigs, goats and chickens. Villagers can feed these animals with locally produced rice, maize and cassava. Livestock development will reduce the pressure on land and the exploitation of the forest;
- all village households currently cultivate land inside the Khau Ca SHCA. Training is important so that they follow national conservation laws and regulations.

WARECOD initially focused on the impact of the Khau Ca SHCA on local livelihoods. Now there is a need to consider how local people can be helped to find alternative livelihoods. Villagers have ideas on how their livelihoods can be strengthened, but more discussion is needed. These have been the first steps of a process that needs to continue.



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